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SCARABAEIDAE COLLECTED IN LIGHT TRAPS AT ST. GEORGE, BROOKSTEAD AND GATTON, QUEENSLAND

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Abstract

Forty-one species of Scarabaeidae were taken in light traps operated nightly near St. George, Brookstead and Gatton from September, 1973, to late March, 1974. Six subfamilies of scarabs are represented in the catch.

Introduction

Scarabs are commonly attracted to light and, because of recent taxonomic revisions (Carne, 1957a, 1957b, 1958; Britton, 1957, and Matthews, 1972) are easily identified.

The species listed below were taken in "Minnesota" light-traps (Southwood, 1966), incorporating General Electric F15T8 black-light bulbs. A light operated continuously at St. George and Brookstead, and between 17.00 hours and 06.30 hours each night at Gatton, from the beginning of September, 1973, until late March, 1974. These localities are all west of Brisbane by some 450, 150 and 75 kilometres respectively. Collection bottles containing two per cent formalin, were changed daily.

Sites were located as follows:

- (i) St. George—19 km south-east of the town on the edge of the irrigation area until early February, then 9 km south-east of the town;
- (ii) Brookstead—11 km north-west of that town near the North Arm of the Condamine River; and
- (iii) Gatton, 6 km east of the town at the D.P.I. research station.

In the following table, "rare" indicates fewer than 3 specimens, "few" 4-10 specimens and "common" more than 10 specimens taken during the entire trapping period.

List of Species

SPECIES	LOCALITY	FREQUENCY
Melolonthinae		
<i>Colpochila bogania</i> Britton	St. George	Nov.-Dec. few
<i>C. marginata</i> Blackburn	St. George	Oct.-Nov. few
<i>C. palpalis</i> Britton	St. George	Nov. few
<i>C. senex</i> Britton	St. George	Nov. rare
<i>C. testaceipennis</i> Macleay	Gatton	Dec. rare
<i>Diphucephala</i> sp.	Gatton	Nov. rare
<i>Frenchella hirticollis</i> Blackburn	Gatton	Feb.-Mar. few
<i>Gnaphalopoda</i> sp.	St. George	Dec. rare
<i>Heteronyx</i> spp. (2 species)	one each at Gatton and St. George	Nov.-Feb. common
Maechidius eutermiphilus Lea		
<i>Maechidius</i> sp.	Gatton	Dec. few
<i>M. rugosicollis</i> Macleay	Gatton	Dec. few
<i>Maechidius</i> sp.	Brookstead	Feb. rare
<i>Neso</i> sp.	St. George	Nov. few
<i>Sericesthis suturalis</i> Macleay	Gatton	Oct.-Dec. common
Aphodiinae		
<i>Aphodius</i> spp. (2 species)	one each at Gatton and Brookstead	Oct., Jan.-Feb. common
Hybosorinae		
<i>Liparochnrus rufus</i> Blackburn	St. George	Sept.-Oct. few
Scarabaeinae		
<i>Onthophagus atrox</i> Harold	Gatton	Nov.-Feb. common
<i>O. consentaneus</i> Harold	St. George	Dec. common
<i>O. depressus</i> Harold	Gatton	Nov. rare
<i>O. desectus</i> Macleay	Gatton and Brookstead	Oct.-Nov., Jan. few
<i>O. muticus</i> Macleay	Gatton	Oct.-Nov., Jan.- Feb. common
<i>O. pentacanthus</i> Harold	St. George	Sept.-Oct. few
<i>O. pugnacior</i> Blackburn	St. George	Sept.-Dec. common
<i>O. quinquetuberculatus</i> Macleay	All three sites	Sept.-Mar. common
<i>O. gazella</i> Fabricius	St. George	Feb.-Mar. common
<i>Onitis alexis</i> Klug	St. George	Feb. rare
Dynastinae		
<i>Cryptodus caviceps</i> Westwood	St. George	Dec. common
<i>C. tasmanianus</i> Westwood	Brookstead	Nov.-Dec. few
<i>Dasygnathus dejeani</i> Macleay	Brookstead	Nov. few
<i>Dipelicus optatus</i> (Sharp)	St. George	Feb. few
<i>Metanastes vulgivagus</i> (Olliff)	All three sites	Sept.-Mar. common
<i>Neodon pecuarius</i> (Reiche)	St. George	Sept.-Feb. common
<i>Neodon pecuarius</i> (Reiche)	Gatton	Feb. rare
<i>Semanopterus rectangulus</i> Blackburn	St. George	Nov., Jan.-Feb. few
<i>S. subcostatus</i> (Castelnau)	Brookstead	Oct., Jan. few

Rutelinae

<i>Anoplognathus boisduvali</i> Boisduval	All three sites	Nov.-Feb. common
<i>A. pallidicollis</i> Blanchard	Gatton	Nov.-Dec. common
<i>A. porosus</i> (Dalman)	Gatton	Feb. common
<i>Repsimus aeneus</i> (Fabricius)	All three sites	Dec.-Feb. few
<i>R. manicatus manicatus</i> (Swartz)	Gatton	Nov. rare

Discussion

Virtually all of the above locality records are new. Important extensions of the known ranges of various species, together with the reference of the last published range are given below:

Maechidius eutermiphilus—previously only recorded from Townsville (Britton, 1957);

Onthophagus depressus—an introduced species only recorded in Queensland from Lamington (Matthews, 1972);

O. pentacanthus—a new northern record (Matthews, 1972);

O. pugnator—a new northern record (Matthews, 1972);

Dipelicus optatus—the new record extends the known range to the south and west (Carne, 1957b); and

Anoplognathus boisduvali—new record is a westward extension of the known range (Carne, 1957a).

Many of the other locality records are very important in that they serve to fill in blanks in the known distributions. Overall, the St. George site yielded 21 species with 20 and 10 species being taken at Gatton and Brookstead respectively.

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